

Contact Information	Department of Mathematics Oberlin College Bosworth Hall, 50 W Lorain St. Oberlin, OH 44074, USA	<i>Office:</i> 208B <i>Phone:</i> (956) 624-3574 <i>E-mail:</i> zmohamed@oberlin.edu
Education Background	University of Nebraska-Lincoln (UNL) PhD. in Statistics University of Texas Rio Grande Valley (UTRGV) Master's degree in Mathematics and Statistics Kuwait University , Kuwait Master's degree in Statistics and Operations Research Cairo University , Egypt B.Sc. in Statistics, (minor: Computational Socio-Sciences)	2018-2023 2015-2017 2005-2010 1997-2001
Professional Experience	07/2023-present Oberlin College 08/2018-2023 University of Nebraska-Lincoln 04/2018 Continuing Education UTRGV 08/2017-07/2018 University of Texas Rio Grande Valley 06/2015-05/2017 University of Texas Rio Grande Valley 10/2009–05/2014 Public Authority for Applied Education 08/2004-05/2015 Kuwait Ministry of Education	
Publications	<ul style="list-style-type: none"> • Mohamed Z., Fofana S., Cobos E., Tripathi M., Oraby T. (2024). Causal Predictive Modeling of Survival of Lung and Bronchus Cancer Patients Diagnosed in Texas 2010-2011. Accepted to PLOS One 09/15/2025. • Mohamed Z., Gong W. (2025). A Comparison Between Geostatistical and Machine Learning Models for Spatio-Temporal Prediction of PM2.5 Data. Spatial Statistics (under review) • Aldirawia H., Bulutb U., Mohamed Z. (2024). Factors Contributing to Freshmen 15 Weight Gain. Journal of Hispanic Higher Education (under review) • Oraby T, Tyshenko MG, Balkhy HH, Tasnif Y, Quiroz-Gaspar A, Mohamed Z., Araya A, Elsaadany S, Al-Mazroa E, Alhelail MA, Arabi YM, Al-Zoughool M (2020). Analysis of the Healthcare MERS-CoV Outbreak in King Abdulaziz Medical Center, Riyadh, Saudi Arabia, June-August 2015 Using a SEIR Ward Transmission Model. • Mohamed, Z. & Oraby, T. (2017). Multi-Type Branching Processes Modeling of Nosocomial Epidemics. Stochastic and Quality Control, 32(2), pp. 63-75. Retrieved 11 Dec. 2017, from doi:10.1515/eqc-2017-0026. • Al-Awadhi, F., Konsowa, M., and Najeh, Z. (2009) Commute times and the effective resistances of random trees. Probability in the Engineering and Informational Sciences, 23(4): 649-660. 	

Conferences and Presentations

- 10/2025 NISS Data Science at the Intersection of Public Health & Environment
“City Digital Twin Software Platform to Integrate Climate Dynamics in Spatial–Temporal Modeling of Housing Affordability
- 10/2024 Women in Statistics and Data Science Conference
“Causal Predictive Modeling of Survival of Lung and Bronchus Cancer Patients Diagnosed in Texas 2010-2011”
- 10/2023 Women in Statistics and Data Science Conference
“A Comparison between Geostatistical and Non-Geostatistical Methods for Spatio-temporal Data. ”
- 10/2022 Women in Statistics and Data Science Conference
“Data Fusion Methods For Air Quality Measurements”
- 04/2017 Sixth Annual Statistics Day Texas A&M – Kingsville, TX.
“Multi-Type Branching Processes Modeling of Nosocomial Epidemics”
- 05/2009 Department Seminar
“Commute Times and the Effective Resistances of Random Trees”

Workshops

- 10/2025 “ Data Science at the Intersection of Public Health & Environment In-person, National Institute of Statistical Sciences (NISS), University of Chicago, October 20–24, 2025.
- 07/2024 “ Multivariable Thinking in Introductory and Intermediate Statistics Courses workshop” Virtual.
- 12/2023 “ Activities with Data Collected from Students workshop” Virtual.
- 08/2023 “ IDEAL Center workshop” Virtual.
- 07/2023 “ Teaching Statistics with GAISE workshop” Virtual.
- 08/2018 “ Teaching Assistant Training” at UNL.
- 09/2018 “Presenting Research To The Public” at UNL.
- 09/2018 “Assessment” Motivating and revealing student thinking at UNL.
- 04/2018 3rd Teaching Development & Teaching-Related Research Workshop.
“Kagan Strategies in the Classroom”

Posters

- 10/2024 Women in Statistics and Data Science Conference
“Causal Predictive Modeling of Survival of Lung and Bronchus Cancer Patients Diagnosed in Texas 2010-2011”
- 10/2023 Women in Statistics and Data Science Conference
“A Comparison between Geostatistical and Non-Geostatistical Methods for Spatio-temporal Data. ”
- 10/2022 Women in Statistics and Data Science Conference
“Data Fusion Methods For Air Quality Measurements”
- 05/2018 UTRGV Engaged Scholar Symposium (ES2).
“Ticks in Texas”. (Collaboration)

Projects

- 06/2025 Summer project:
“Integrating Survival Analysis & Machine Learning to Predict Breast Cancer Outcomes in Young Women
- 06/2025 Summer project:
“Spatio-Temporal Prediction for PM2.5 Levels in California
- 07/2023 Summer project:
“Comparative Survival Analysis between two Common Gastrointestinal Cancer Patients”
- 06/2023 Summer project:
“Spatial imputation of missing workplace/destination data using multiple methods”
- 03/2020 Statistical Cross-disciplinary Collaboration and Consulting Lab:
“Impact of Manure and Cedar Mulch Land Application on Agronomic and Soil Health Variables in Corn Production Systems”
- 12/2020 Statistical Cross-disciplinary Collaboration and Consulting Lab:
“Nitrogen Management in Irrigated Corn using Crop Sensor and Crop Model via Fertigation”.
- 04/2018 UTRGV Engaged Scholar Symposium (ES2).
“Ticks in Texas”. (Collaboration)

Achievements

- 02/2022 Top 31%, Kaggle Competition,
“Nature never goes out of style!”
- 02/2021 Rank 5, Model Inference (1a),
KAUST Competition on Spatial Statistics for Large Datasets.
- 03/2021 Rank 8, Model Prediction (1b),
KAUST Competition on Spatial Statistics for Large Datasets.

Certificates for Addition

In-Person & Online Courses

- Supervised Machine Learning, Stanford University.
- AI Advanced Learning Algorithm, Stanford University.
- Unsupervised Learning, Recommenders, Reinforcement Learning, Stanford University.
- Rcpp (R and C++), National Institute of Statistical Sciences.
- Spatial Statistical Learning, ISI.
- Large-Scale Spatial Data Science, ISI.
- Spatial and Spatio-Temporal Point Processes and Beyond, OSSP.
- SQL, Saudi Federation for Cybersecurity, Programming & Drones, Satr.Codes.
- Python for Data Analytics and Machine Learning Bootcamp.
- Bayesian statistics, University of California.
- Learning How to Learn, UC San Diego
- SPSS, Public Authority for Applied Education and Training, Kuwait.
- R, Scientific Research Center and Initiative Group, Egypt.
- Cooperative Learning Strategies Using Kagan Structures.
- International Computer Driving License (ICDL), Kuwait.
- Advanced Microsoft office word & excel, Kuwait.

Awards and Honors	Fall 2022	David H. and Annie E. Larrick Graduate Student Travel Award
	Spring 2017	The Outstanding International Student Scholarship, UTRGV
	2016-2017	Dr. Miguel Paredes Endowed Scholarship, UTRGV
		Nobel Laureate S. Chandraeskha Scholarship, UTRGV
		Margaret Draper Scholarship, UTRGV
	2015-2016	Presidential Graduate Scholarship, UTRGV
	2009-2015	Excellence Teaching Award, Kuwait Ministry of Education.
Academic Public Services	Fall 2021	Tutoring in William H.Thompson Scholars Learning Community lab in UNL for undergraduate.
	Spring 2018	Math tutoring for elementary, middle and high-school students in the Islamic Community Center, Tx.
Software and Programming Languages	R	
	SAS	
	Python	
	Matlab	
	SQL	
	L ^A T _E X, Office(Word, Excel, Powerpoint)	